In the claims

1. (amended) [A kind of] The DNA chip of claim 3 [for diagnosing the mutation of the hereditary anemia related genes, wherein fixed specific DNA probes for testing the above-said mutation on the glass slide, silica plate, membrane and macromolecular materials. The said probes are as follows], wherein the DNA probes for β-thalassemia comprise:

β (27-28) 1	TGG TGA GGC CCT GGG CAG (SEQ ID NO:1)
β (27-28) 2	GGT GAG GCC CCT GGG CAG (SEQ ID NO: 2)
β (43) 1	GGT TCT TTG AGT CCT TT (SEQ ID NO:3)
β (43) 2	GGT TCT TTT AGT CCT TT (SEQ ID NO:4)
β (42+T) 2	AGG TTC TTT TGA GTC CT (SEQ ID NO:5)
IVS (2-1) 1	CTT CAG GGT GAG TCT (SEQ ID NO:6)
IVS (2-1) 2	CTT CAG GAT GAG TCT (SEQ ID NO:7)
β (1) 1	ACA GAC ACC ATG GTG CAC CT (SEQ ID NO:8)
β (1) 2	ACA GAC ACC AGG GTG CAC CT(SEQ ID NO:9)
β (8) 1	GAG GAG AAG TCT GCC (SEQ ID NO:10)
β (8) 2	TGA GGA GGT CTG CCG (SEQ ID NO:11)
β (8-9) 2	AGG AGA AGG TCT GCC (SEQ ID NO:12)
β (37) 1	TAC CCT TGG ACC CAG (SEQ ID NO:13)
β (37) 2	TAC CCT TAG ACC CAG (SEQ ID NO:14)
P (+40-43) 1	GCA ACC TCA AAC AGA CA (SEQ ID NO:15)
P (+40-43) 2	AGC AAC CTC AGA CAC CA (SEQ ID NO:16)
P (β31, IVS1) 1	CAC CCT TAG GCT GCT GG (SEQ ID NO:17)
P (IVS1) 2	CCC ACC CTG AGG CTG CT (SEQ ID NO: 18)
β (31) 2	CCC TTA GGT GCT GGT GG (SEQ ID NO:19)
P (cap+1) 1	ATT GCT TAC ATT TGC (SEQ ID NO:20)
P (cap+1) 2	ATT GCT TCC ATT TGC (SEQ ID NO:21)

β (19) 1	AAG GTG AAC GTG GAT (SEQ ID NO:22)
β (19) 2	AAG GTG AGC GTG GAT (SEQ ID NO:23)
β (95+A) 1	CTG TGA CAA GCT GCA (SEQ ID NO:24)
β (95+A) 2	TGT GAC AAA GCT GCA (SEQ ID NO:25)
IVS (2-5) 1	AGG GTG AGT CTA TGG (SEQ ID NO:26)
IVS (2-5) 2	AGG GTG ACT CTA TGG (SEQ ID NO:27)
β (41-42) 1	CAG AGG TTC TTT GAG T (SEQ ID NO:28)
β (41-42) 2	CAG AGG TTG AGT CCT T (SEQ ID NO:29)
IVS (2-654) 1	GTT AAG GCA ATA GCA (SEQ ID NO:30)
IVS (2-654) 2	GTT AAG GTA ATA GCA (SEQ ID NO:31)
β (17) 1	CTG TGG GGC AAG GTG AAC (SEQ ID NO:32)
β (17) 2	CTG TGG GGC TAG GTG AAC (SEQ ID NO:33)
β (71-72) 1	TGC CTT TAG TGA TGG (SEQ ID NO:34)
β (71-72) 2	TGC CTT TAA GTG ATG (SEQ ID NO:35)
β (71-72) 3	TGC CTT TTA GTG ATG (SEQ ID NO:36)
IVS (1-5) 1	CAG GTT GGT ATC AAG (SEQ ID NO:37)
IVS (1-5) 2	CAG GTT GCT ATC AAG (SEQ ID NO:38)
IVS (1-1) 1	TGG GCA GGT TGG TAT (SEQ ID NO:39)
IVS (1-1) 2	TGG GCA GTT TGG TAT (SEQ ID NO:40)
β (30) 2	CTG GGC GGG TTG GTA (SEQ ID NO:41)
P (-28) 1	GGG CAT AAG AGT CAG (SEQ ID NO:42)
P (-28) 2	GGG CAT AGG AGT CAG (SEQ ID NO:43)
P (-29) 2	TGG GCA TGG AAG TCA (SEQ ID NO:44)
P (-30) 1	CTG GGC ATA AAA GTC (SEQ ID NO:45)
P (-30) 2	CTG GGC ACA AAA GTC (SEQ ID NO:46)
P (-31) 2	GCT GGG CGT AAA AGT (SEQ ID NO:47)
P (-32) 2	GGC TGG GAA TAA AAG (SEQ ID NO:48)
β (14-15) 1	TAC TGC CCT GTG GGG CAA GG (SEQ ID NO:49)
β (14-15) 2	TAC TGC CCT GGT GGG GCA AG (SEQ ID NO:50)

HbE (26) 1 TGG TGG TGA GGC CCT (SEQ ID NO:51)

HbE (26) 2 TGG TGG TAA GGC CCT (SEQ ID NO:52)

wherein the DNA probes for α-thalassemia, HbH, HbS and HbM hemoglobin abnormality Constant Spring mutation comprise:

P(cs) 1 ATA CCG TTA AGG TGG (SEQ ID NO:53)

P (cs) 2 ATA CCG TCA AGC TGG (SEQ ID NO:54)

wherein the DNA probes for Quong SZE mutation comprise:

P (qs) 1 GCC TCC CTG GAC AAG (SEQ ID NO:55)

P (qs) 2 GCC TCC CCG GAC AAG (SEQ ID NO:56)

wherein the DNA probes for HbS sickle cell anemia mutation comprise:

P (hbs) 1 ACT CCT GAG GAG AAG (SEQ ID NO:57)

P (hbs) 2 ACT CCT GTG GAG AAG (SEQ ID NO:58)

wherein the DNA probes for Duan mutation comprise:

P (duan)1 GTG GAC GAC ATG CCC (SEQ ID NO:59)

P (duan)2 GTG GAC GCC ATG CCC (SEQ ID NO:60)

and wherein the DNA probes for HbM mutation comprise:

P (hbm) 1 TAA GGG CCA CGG CAA (SEQ ID NO:61)

P (hbm) 2 TAA GGG CTA CGG CAA (SEQ ID NO:62)

P (hbm) 3 CGA CCT GCA CGC GCA (SEQ ID NO:63)

P (hbm) 4 CGA CCT GTA CGC GCA (SEQ ID NO:64)

P (hbm) 5 AAG AAA GTG CTC GGT (SEQ ID NO:65)

P (hbm) 6 AAG AAA GAG CTC GGT (SEQ ID NO:66)

P (hbm) 7 TGA GCT GCA CTG TGA (SEQ ID NO:67)

P (hbm) 8 TGA GCT GTA CTG TGA (SEQ ID NO:68)

P (hbm) 9 GAA GGC TCA TGG CAA (SEQ ID NO:69)

P (hbm) 10 GAA GGC TTA TGG CAA (SEQ ID NO:70)

Please add new claims 2-3

2. (new) A DNA chip for diagnosing the mutation of the hereditary anemia related genes having thereon fixed specific DNA probes for testing the above-said mutation on the glass slide, silica plate, membrane and macromolecular materials.

3. (new) The DNA chip of claim 2 wherein the fixed specific DNA probes are selected from the group consisting of

DNA probes for β-thalassemia;

DNA probes for α-thalassemia, HbH, HbS and HbM hemoglobin abnormality Constant Spring mutation;

DNA probes for Quong SZE mutation;

DNA probes for HbS Sickel Cell Anemia mutation;

DNA probes fro Duan mutaion;

DNA probes for HbM mutation, and

combinations thereof.